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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NGO, NGAN V

ART UNIT

PAPER NUMBER

2814

DATE MAILED: 07/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/648,919

Applicant(s)

MARR, KENNETH W.

Examiner

Ngan Ngo

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 and 33-35 is/are pending in the application.
- 4a) Of the above claim(s) 8-12 and 14-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 13, 17-29 and 33-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 15.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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The response filed May 16, 2003 has been entered and made of record as paper no. 16.

Claims 1-4, 6, 7, 13, 17-22, and 27 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al (of record).

Shimizu discloses an ESD protection device in figures 1 and figure 2 having a first doped region (22), a bonding pad (25), a second doped region (23 or 24), and a power node (Vss). It would have been obvious to one of ordinary skill in the art that there is no isolation structure between the first and second doped regions.

Claims 5 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al as applied to claims 1-4, 6, 7, 13, 17-22, and 27 above, and further in view of Yu et al (of record).

Yu discloses a first and a second isolation structures (58) in order to separate one device from another device. It would have been obvious to one of ordinary skill in the art to form the isolation structures in Shimizu's device as taught by Yu.

Claims 23-26, and 28 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al as applied to claims 1-4, 6, 7, 13, 17-22, and 27 above, and further in view of Mackawa (of record).

Mackawa discloses an ESD protection circuit comprising two voltage sources (VDD and GND), an external bonding pad (1704), and two protection circuits (1700 and 1702). It would have been obvious to one of ordinary skill in the art to use two voltage sources in Shimizu's device to provide extra protection circuit as taught by Mackawa.

Claims 29 and 33-35 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu et al as applied to claims 1-4, 6, 7, 13, 17-22, and 27 above, and further in view of Lin (of record).

Shimizu further discloses that ESD protection circuit can be used a semiconductor chip. Note lines 17-24 of column 1. Shimizu does not disclose the connection between the ESD protection circuit and the pins of the semiconductor chip. However, Lin teaches that a protection circuit can be connected to the pins of the semiconductor chip. Note lines 52-57 of column 1 of Lin. Therefore, it would have been obvious to one of ordinary skill in the art to connect ESD protection circuit in Shimizu to the pins of the semiconductor chip in order to prevent ESD current from flowing into the internal circuit via the pins as taught by Lin.

Applicant's arguments filed May 16, 2003 have been fully considered but they are not persuasive.

Figure 2 of Shimizu clearly show "only one path" exists between the bonding pad and the power node Vss through the substrate. The regions 23 and 24 are connected together and therefore they are the same node, not two different nodes that provides two "different paths" as argued by Applicants.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Examiner Ngan Ngo at telephone number (703) 308-4938. The fax number for the Art unit is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.


Ngan Van Ngo
Primary Examiner

Ngan Ngo

June 29, 2003